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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Carlos Schuler

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EXAMINER

PATEL, NIHIR B

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/852,408	Applicant(s) SCHULER ET AL.	
	Examiner NIHIR PATEL	Art Unit 3772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed on October 20th, 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 20th, 2009 has been entered.

Response to Arguments

2. Applicant's arguments filed on September 16th, 2009 have been fully considered but they are not persuasive. The applicant argues that Burns does not teach an electromechanical lockout device having an inactive state which prevents manual actuation of the aerosol generator and an active state which permits manual actuation only when an electric current is being supplied to place the lockout device in the active state. Burns does teach an electromechanical lockout device having an inactive state which prevents manual actuation of the aerosol generator (**Col. 8 lines 23-27 of the burns reference recites "The controller 24 would signal the actuator means 28 to lock up and prevent actuation of the inhalation device after the requisite number of actuations have occurred..."** implicitly teaches that Burns discloses an electromechanical lockout device having an inactive state which prevents actuation of the aerosol generator and col. 7 lines 56-61 recites **"Pressing down on the canister 10 will force the valve stem 16 into the canister 10, and a metering arrangement within the canister 10 will allow a precise amount of drug and propellant out through passage 19..."** implies that

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its manually activated) and an active state which permits manual actuation only when an electric current is being supplied to place the lockout device in the active state **(If the controller 24 sends a signal to the actuator 28 to lock-up and prevent actuation during an inactive state, it is inherent that the controller 24 sends a signal (current) to the actuator 28 to allow the user to manual press down on the canister in an active state.)**

Response to Amendment

3. The examiner acknowledges the amendment filed on September 16th, 2009. The amendment comprises amending claim 17 and cancelling claims 28-36.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims **1-13 and 15-26** are rejected under 35 U.S.C. 102(b) as being anticipated by Burns et al. (US 5,284,133).

6. **As to claim 1**, Burns teaches an apparatus that comprises a container **10 (see figure 1; column 7 lines 50-55)** adapted to contain a drug formulation; an aerosol generator for aerosolizing the drug formulation in response to manual actuation **(see column 7 lines 50-65)**; and an electromechanical lockout device **24 (see figure 1 and column 8 lines 10-27; see arguments above)** having an inactive state which prevents manual activation of the aerosol

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generator thereby preventing aerosolization of the drug formulation and which has an active state which permits manual actuation of the aerosol generator thereby permitting aerosolization of the drug formulation only when an electric current is being supplied to place the electromechanical lockout device in the active state (**since the controller is controlling the locking mechanism it is inherent that a power is being supplied to the lock up device**), wherein the inactive state requires no electrical current (**see column 8 lines 20-30**).

7. **As to claim 2**, Burns teaches an apparatus wherein the lockout device comprises a lockout element that is positioned in a dose preventing position when in an inactive state, and is movable to a dosing permitting position when electronic current is supplied to place the lockout device in the activated state (**see columns 8 and 9**).

8. **As to claim 3**, Burns teaches an apparatus wherein the lockout device further comprises circuitry for supplying electrical current to move the lockout element to the dose permitting position when the lockout device is in the activated state (**see column 8 lines 55-67**).

9. **As to claim 4**, Burns teaches an apparatus wherein the lockout device further comprises a controller having an associated memory for storing a dosing condition, and wherein the controller is configured to send a signal to place the lockout device in the activated state only after the dosing condition has been satisfied (**see column 8 lines 1-30**).

10. **As to claim 5**, Burns teaches an apparatus wherein the container comprises a canister **10** (**see figure 1; column 7 lines 50-55**), and wherein the aerosol generator comprises a metering valve **12** and an actuator **28** operably coupled to the canister (**see column 7 lines 50-60 and column 9 lines 9-20**).

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11. **As to claim 6**, Burns teaches an apparatus that further comprises a housing, wherein the canister is reciprocally held within at least a portion of the housing between a home position and a dosing position where the actuator is engaged to open the metering valve and to permit the escape of metered amount of the drug formulation from the canister (**see column 7 lines 50-60 and column 8 line 10-20**).

12. **As to claim 7**, Burns teaches an apparatus wherein the lockout device is positioned to prevent engagement of the actuator when in the dose preventing position to thereby prevent opening of the metering valve (**see column 10 lines 25-45**).

13. **As to claim 8**, Burns teaches an apparatus wherein the lockout element has a distal end that is engageable with the canister to prevent substantial displacement of the canister into the housing when the lockout element is in the dose prevention position (**see column 10 lines 50-60**).

14. **As to claim 9**, Burns teaches an apparatus wherein upon placement of the preventing device into the activated state, the distal end of the lockout element is retracted to permit displacement of the canister into the housing and to permit engagement of the actuator to open the metering valve (**see column 10 lines 50-60**).

15. **As to claim 10**, Burns teaches an apparatus wherein the canister is movable within the housing when the preventing device in the inactive state, and further comprising a stop that is reciprocally disposed within the housing below the actuator, and wherein the lockout element has a distal end that is engageable with the stop when in the activated state to prevent movement of the stop within the housing such that displacement of the canister engages the actuator with the

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stop to permit dispensing of the metered drug formulation when the preventing device is in the activated state (**see column 9 lines 40-60**).

16. **As to claim 11**, Burns teaches an apparatus that further comprises a high pressure gas source to assist in aerosolizing the drug formulation when the lockout device is in the activated state (**see column 7 lines 50-60**).

17. **As to claim 12**, Burns teaches an apparatus that further comprising a dose counter disposed to count the number of doses of the drug formulation dispensed from the container (**see column 9 lines 40-60**).

18. **As to claim 13**, Burns teaches an apparatus wherein the container is reciprocatably disposed within the housing, and wherein the dose counter comprises a dose counting circuit positioned to sense when the container has been reciprocated within the housing (**see column 9 lines 40-60**).

19. **As to claim 15**, Burns teaches an apparatus that further comprises a nozzle operably coupled to the canister, and wherein the housing further includes a mouthpiece **14** disposed to receive the drug formulation from the nozzle (**see column 7 lines 50-60**).

20. **As to claim 16**, Burns teaches an apparatus wherein the mouthpiece has a first end and a second end, and wherein the nozzle is positionable within an opening adjacent the first end of the mouthpiece to permit the aerosolized drug formulation to be delivered to a patient upon inhalation through the second end of the mouthpiece (**see figure 1**).

21. **As to claim 17**, Burns teaches a method step of providing a drug delivery system comprising a container having an amount of a drug formulation that is aerosolized in response to manual actuation (**see column 7 lines 40-60**) and an electromechanical lockout device (**see**

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response to arguments above); configuring the electromechanical lockout device to provide an inactive state wherein the manual actuation of the container is prevented ; and supplying electrical current to the lockout device to place the lockout device in an active state, thereby permitting the manual actuation of the aerosolization of the drug formulation only when the electrical current is being supplied to place the lockout device in the active state (**see response to arguments above**).

22. **As to claim 18**, Burns teaches a method step wherein the electromechanical lockout device comprises a lockout element **44** that is positioned in a dose preventing position when in the inactive state, and further comprising moving the lockout element to a dosing permitting position when electric current is supplied to place the lockout device in the activated state (**see col. 8 lines 23-31**).

23. **As to claim 19**, Burns teaches a method step wherein the container comprises a canister having a metering valve and an actuator, wherein the canister is reciprocatably held within a housing between a home position and a dosing position, and further comprising depressing the canister into the housing to the dosing position to engage the actuator and to release a metered amount of the drug formulation when the lockout device is in the active state (**see col. 7 lines 51-68**).

24. **As to claim 20**, Burns teaches a method step of preventing engagement of the actuator when the lockout element is in the dose preventing position (**see fig. 4A**).

25. **As to claim 21**, Burns teaches a method step of engaging the canister with the lockout element to prevent movement of the canister to the dispensing position when the lockout element is in the dose preventing position (**see fig. 4A**).

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26. **As to claim 22**, Burns teaches a method step of disengaging the lockout element from the canister to permit movement of the canister to the dispensing position upon supply of the electrical current (**see fig. 4B**).

27. **As to claim 23**, Burns teaches a method step of engaging the lockout element with a stop that is positioned below the actuator upon supply of the electrical current, and further comprising depressing the canister into the housing to engage the actuator with the stop (**see figs. 4A and 4B**).

28. **As to claim 24**, Burns teaches a method step of stopping the supply of the electric current to the lockout device after the drug formulation has been aerosolized (**see col. 8 lines 23-31**).

29. **As to claim 25**, Burns teaches a method step of supplying electric current to the lockout device to permit another dosing only after a certain dosing condition has been satisfied (**see col. 8 lines 23-31**).

30. **As to claim 26**, Burns teaches a method step of counting the number doses aerosolized from the container (**see col. 8 lines 1-10**).

Claim Rejections - 35 USC § 103

31. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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32. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

33. Claims **14 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. (US 5,284,133) in view of Nilsson et al. (US 4,934,358).

34. **As to claims 14 and 27**, Burns substantially discloses the claimed invention; see rejection of claims 1 and 13 above, but does not disclose a dose counter that comprises a display for indicating if the container contains an amount of drug formulation. Nilsson teaches an apparatus that does provide a dose counter that comprises a display for indicating if the container contains an amount of drug formulation (**see column 4 lines 30-50**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Burns's invention by providing a dose counter that comprises a display for indicating if the container contains an amount of drug formulation as taught by Nilsson in order to supply information about the number of doses given.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIHIR PATEL whose telephone number is (571)272-4803. The examiner can normally be reached on 7:30 to 4:30 every other Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nihir Patel/
Examiner, Art Unit 3772

/Patricia Bianco/
Supervisory Patent Examiner, Art Unit 3772